



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q68026

Hajime ITO, et al.

Appln. No.: 10/041,631

Group Art Unit: 3617

Confirmation No.: 6578

Examiner: Russell D. Stormer

Filed: January 10, 2002

For: LIGHT ALLOY WHEEL FOR VEHICLE AND METHOD AND APPARATUS FOR
PRODUCING SAME

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.97 and 1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby
notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached
PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem
material to patentability of the claims of the above-identified application.

One copy of each of the listed documents is submitted herewith.

The present Information Disclosure Statement is being filed after either a Final Office
Action, Notice of Allowance, or an action that otherwise closes prosecution in the application
(whichever is earlier), but before payment of the Issue Fee, and therefore Applicant is submitting
herewith a check for the fee of \$180.00 under 37 C.F.R. § 1.17(p), and a Statement Under
37 C.F.R. § 1.97(e).

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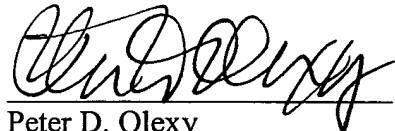
INFORMATION DISCLOSURE STATEMENT
U.S. Appln. No.: 10/041,631

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant encloses herewith a copy of a Communication from a foreign patent office in a counterpart application citing such documents, together with an English-language version (if not already included) of at least that portion of the Communication indicating the degree of relevance found by the foreign patent office.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,



Peter D. Olexy
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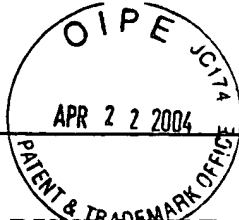
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Date: April 22, 2004



Substitute for Form 1449 A & B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Complete if Known

Application Number	10/041,631
Confirmation Number	6578
Filing Date	January 10, 2002
First Named Inventor	Hajime ITO
Art Unit	3617
Examiner Name	Russell D. Stormer
Attorney Docket Number	Q68026

Sheet 1 of 1

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code ² (if known)		
		US 4,799,534		01-24-1989	UBE Industries, Ltd.
		US			
		US			
		US			
		US			
		US			
		US			
		US			
		US			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
		EP	0 273 586	A2	07-06-1988	Ube Industries, Ltd.	
		EP	0 949 022	A1	10-13-1999	WFV Werkzeug Formen Und Vorric	
		EP	0 785 038	A2	07-23-1997	Topy Kogyo Kabushiki Kaisha	
		GB	2 153 724	A	08-29-1985	DBM Industries Limited (Canda)	
		FR	2 740 077	A	04-25-1997	Honda Motor Co. Ltd.	
		EP	0 423 447	A2	04-24-1991	TVA Holding S.p.A.	
		WO	99/21726	A	06-05-1999	Washi Kosan Co., Ltd.	

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation ⁶

Examiner Signature

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or in the comment box of this document. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to indicate here if English language Translation is attached.



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Erhalten
18. DEZ. 2003
Strehl et al.

Datum/Date

18.12.03

Zeichen/Ref./Réf.

EPA-39361

Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°.

02000721.7-2302-

Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire
HITACHI METALS, LTD.

COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☐ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

☐ abstract

☒ title

☒ The abstract was modified by the Search Division and the definitive text is attached to this communication.

The following figure will be published together with the abstract: 1

REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A ✓	EP 0 273 586 A (UBE INDUSTRIES) 6 July 1988 (1988-07-06) * the whole document *	1-21	B21D53/26 B22D15/00 B60B3/14
A ✓	EP 0 949 022 A (WVW WERKZEUG FORMEN UND VORRIC) 13 October 1999 (1999-10-13) * the whole document *	1-21	
A ✓	US 4 799 534 A (DANNOURA SADAYUKI ET AL) 24 January 1989 (1989-01-24) * the whole document *	1-21	
A ✓	EP 0 785 038 A (TOPY IND) 23 July 1997 (1997-07-23) * the whole document *	1-21	
A ✓	GB 2 153 724 A (DBM INDUSTRIES LTD) 29 August 1985 (1985-08-29)		
A ✓	FR 2 740 077 A (HONDA MOTOR CO LTD) 25 April 1997 (1997-04-25)		
A ✓	EP 0 423 447 A (TVA HOLDING) 24 April 1991 (1991-04-24)		
A	WO 99 21726 A (YOSHIMURA KATSUNORI ; WASHI KOSAN KK (JP)) 6 May 1999 (1999-05-06)		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 9 December 2003	Examiner Peeters, L
<div>CATEGORY OF CITED DOCUMENTS</div> <div>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</div> <div>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</div>			

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 00 0721

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

09-12-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0273586	A	06-07-1988	JP 1612401 C	30-07-1991
			JP 2040415 B	11-09-1990
			JP 63171259 A	15-07-1988
			JP 3004297 B	22-01-1991
			JP 63140747 A	13-06-1988
			AU 585471 B2	15-06-1989
			AU 8203487 A	09-06-1988
			BR 8706459 A	12-07-1988
			CA 1296862 C	10-03-1992
			DE 3786337 D1	29-07-1993
			DE 3786337 T2	03-02-1994
			EP 0273586 A2	06-07-1988
			KR 9101178 B1	25-02-1991
			MX 169103 B	22-06-1993
			US 4840557 A	20-06-1989
EP 0949022	A	13-10-1999	DE 19815418 A1	07-10-1999
			EP 0949022 A1	13-10-1999
US 4799534	A	24-01-1989	JP 1624597 C	18-11-1991
			JP 2051701 B	08-11-1990
			JP 62203657 A	08-09-1987
			JP 1590904 C	30-11-1990
			JP 2017265 B	19-04-1990
			JP 62203658 A	08-09-1987
			AT 53314 T	15-06-1990
			AU 578177 B2	13-10-1988
			AU 6965687 A	10-09-1987
			BR 8700975 A	22-12-1987
			CA 1281168 C	12-03-1991
			DE 3763015 D1	12-07-1990
			EP 0236097 A2	09-09-1987
			KR 9005274 B1	27-07-1990
EP 0785038	A	23-07-1997	JP 9248666 A	22-09-1997
			JP 10005962 A	13-01-1998
			CN 1163170 A ,B	29-10-1997
			DE 69716143 D1	14-11-2002
			DE 69716143 T2	10-07-2003
			EP 0785038 A2	23-07-1997
			KR 222092 B1	01-10-1999
			US 5810067 A	22-09-1998
GB 2153724	A	29-08-1985	CA 1220608 A1	21-04-1987
			AU 577347 B2	22-09-1988
			AU 3815585 A	08-08-1985

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

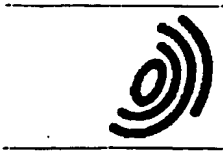
**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 02 00 0721

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09-12-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2153724	A		CH 665148 A5	29-04-1988
			DE 3502895 A1	14-08-1985
			DK 41485 A	03-08-1985
			FR 2559079 A1	09-08-1985
			IT 1182163 B	30-09-1987
			JP 1766527 C	11-06-1993
			JP 4053612 B	27-08-1992
			JP 60162567 A	24-08-1985
			KR 9004452 B1	28-06-1990
			MX 161544 A	25-10-1990
			SE 462954 B	24-09-1990
			SE 8500414 A	03-08-1985
			SG 61790 G	07-09-1990
			ZA 8500706 A	25-09-1985
FR 2740077	A	25-04-1997	JP 9118106 A	06-05-1997
			CN 1152506 A , B	25-06-1997
			FR 2740077 A1	25-04-1997
EP 0423447	A	24-04-1991	IT 1231211 B	23-11-1991
			AU 636639 B2	06-05-1993
			AU 6084890 A	28-02-1991
			EP 0423447 A2	24-04-1991
			SU 1838043 A3	30-08-1993
			US 5143141 A	01-09-1992
WO 9921726	A	06-05-1999	JP 11123901 A	11-05-1999
			WO 9921726 A1	06-05-1999



ABSTRACT / ZUSAMMENFASSUNG / ABREGE

02000721.7

A light alloy wheel for a vehicle (30) comprising a disc portion comprising a hub portion and a design portion and a rim portion, the design portion having as-die-cast spoke portions having a taper angle of less than 5.0° . This wheel can be produced by using a casting apparatus comprising a die assembly comprising at least a stationary lower die and a movable upper die, a movable platen to which the upper die is fixed, a first cylinder and at least three synchronous second cylinders mounted onto a frame of the apparatus for moving the movable platen; driving the first cylinder to slowly reduce the clamping force of the lower die and the upper die; synchronously driving the second cylinders to elevate the movable platen in parallel from a position at which the lower die and the upper die are clamped to a position at which the wheel would not impinge on the lower die even if the movable platen were slanted; and then further elevating the movable platen by the first cylinder.